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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 09/840,034 | 04/24/2001 | Sung Min Kim | EZ1 117 | 4269 |
| 23995 | 7590 | 09/30/2003 | 9 | |
| RABIN & CHAMPAGNE, PC 1101 14TH STREET, NW SUITE 500 WASHINGTON, DC 20005 | | | EXAMINER | |
| | | | CHANAY, CAROL DIANE | |
| ART UNIT | | PAPER NUMBER | | |
| | | | | 1745 |

DATE MAILED: 09/30/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 09/840,034 | KIM ET AL: | |
| | Examiner | Art Unit | |
| | Carol Chaney | 1745 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 07 July 2003.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-8,10-12 and 15-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) 12 and 15-22 is/are allowed.
- 6) Claim(s) 1-5,8 and 10 is/are rejected.
- 7) Claim(s) 6,7 and 11 is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____ .
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ . |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ . | 6) <input type="checkbox"/> Other: _____ . |

Specification

The substitute specification filed 10 July 2003 has not been entered because it does not conform to 37 CFR 1.125(b) and (c) because: the statement as to a lack of new matter under 37 CFR 1.125(b) is missing.

Claim Rejections - 35 USC § 102

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1-5 and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Audit et al., US Patent 5,370,711A, for reasons of record.

Audit et al. disclose a wound battery comprising offset anode and cathode plates with interposed separators. (See Fig. 4, reference numbers 48, 46, 50 and column 10, lines 32-43). The separator is a nonconductive, or insulating material. (See column 9, lines 24-34). It is noted that the "offset areas" disclosed by Audit et al. are identical to the "protrusions of electrodes" recited by the applicants. The sides of the electrode windings disclosed by Audit et al. press against a "current collector" having "protrusions". (Note Figs. 1b, 6a and 6b and column 11, lines 51-67.) A comparison of applicants' Fig. 7 and Audit et al. Fig. 1b show the "current collector" having "protrusions" disclosed by Audit et al. is identical to the "terminal" with a "contact extending part" recited by applicants.

The O-rings (78) shown by Audit et al. are located between the battery housing and the anode and cathode materials. One of ordinary skill in the art would know o-rings are elastomeric materials designed to seal by deformation, and are designed to adjust deformation based on applied pressure. Therefore, one of ordinary skill in the art would understand o-rings are "pressure adjusting means". Because o-rings are designed to operate by being compressed into a groove, they are also considered "rubber packings". (Note page 2482 of 26th Edition *Machinery's Handbook*, Oberg et al., Industrial Press, Inc., 2000.)

Claim Rejections - 35 USC § 103

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Audit et al., for reasons of record.

Audit et al. disclose applicants' invention essentially as claimed, with the exception that Audit et al. do not discuss the compositions of the offset regions of the electrode windings and the compositions of the current collectors. However, it would have been obvious to one of ordinary skill in the art to use the same materials for the anode and the anode terminal, and the same material for the cathode and the cathode terminal because these combinations of material will decrease extraneous galvanic reactions within cells.

Allowable Subject Matter

Claims 6, 7, and 11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Applicants' remarks filed 10 July 2003 regarding these claims are considered persuasive.

Claims 12-and 15-22 are allowed.

The following is a statement of reasons for the indication of allowable subject matter: The nearest prior art of Audit et al. fails to suggest incorporating an anti-explosive valve on the battery current collector/contact terminal. Incorporating such a feature into the current collector of Audit et al. would appear to result in less mechanical and electrical contact between electrode plates and current collectors, and is therefore not considered to be an obvious modification of the Audit et al. invention.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is

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filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carol Chaney whose telephone number is (703) 305-3777. The examiner can normally be reached on Mon - Fri 8:00am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on 703-308-2383. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.


Carol Chaney
Primary Examiner
Art Unit 1745